

Gunter, Jason

From: Nations, Mark <mnations@doerun.com>
Sent: Wednesday, March 12, 2014 8:47 AM
To: Gunter, Jason
Cc: Yingling, Mark; Wohl, Matthew; martin.kator@dnr.mo.gov; robert.hinkson@dnr.mo.gov; brandon.wiles@dnr.mo.gov; Ty Morris (TMorris@barr.com); Cummings, Mark; Sanders, Amy B.
Subject: Federal Progress Report
Attachments: FED_02-14.doc; December__2013_Pb_Results_By_Month_019[1].pdf; Federal.pdf

Jason, attached is the February report.
Mark

07WG

40482408

4.2



Superfund

04.00

**THE
DOE RUN
COMPANY**

Remediation Group

Mark Nations
Mining Properties Manager
mnations@doerun.com

March 11, 2014

Mr. Jason Gunter
Remedial Project Manager
U.S. Environmental Protection Agency
Region 7 - Superfund Branch
11201 Renner Blvd.
Lenexa, KS 66219

Re: The Doe Run Company – Federal Mine Tailings Site Monthly Progress Report

Dear Mr. Gunter:

As required by Article XVII, Paragraph 73 of the Administrative Order on Consent (Docket No. VII-97-F-0009) for the referenced project and on behalf of The Doe Run Company, the progress report for the period February 1, 2014 through February 28, 2014 is enclosed. If you have any questions or comments, please call me at 573-518-0800.

Sincerely,



Mark Nations
Mining Properties Manager

Enclosure

- c: Matt Wohl – TDRC (electronic only)
Mark Yingling – TDRC (electronic only)
Martin Kator – MDNR - DSP
Robert Hinkson – MDNR - HWP
Brandon Wiles – MDNR
Ty Morris – Barr Engineering

Federal Mine Tailings Site
Park Hills, Missouri
Monthly Progress Report
Period: February 1, 2014 – February 28, 2014

1. Actions Performed or Completed This Period:

- a. Work continued on the task of stockpiling rock onsite. This work focused on stockpiling trail rock, Type 1 riprap, Type 2 riprap, Type 3 riprap, and Slope Protection Rock. These rock types are being stockpiled in the Borrow Area and in a staging area near the Former Chat Pile Area. As of the end of the period, work on this task continued.
- b. Work in Phase III of the Off Road Vehicle (ORV) Riding Area continued. This work focused on covering the trails and grids that exceeded the 600 ppm action level. As of the end of the period, work on this task continued. Additional sampling was conducted during the period to test soft material that had pushed up through cover material in Phase III of the ORV Riding Area. Five composite samples were taken in grid G20LT. The goal is to cover this area completely, but it has been too soft to move equipment over. This area was discussed during the preliminary walk-through conducted during the update meeting at the site on February 21, 2014.
- c. Work continued in the Borrow Pit Area. This work focused on covering the open areas with rock. As of the end of the period, work on this task continued.
- d. Work continued in the Former Chat Pile Area. This work focused on grading the ditches and placing cover material over the area. As of the end of the period, work on this task continued.
- e. Work continued in the Shaw Branch Creek Area. This work focused on final grading the Sedimentation Ponds. As of the end of the period, work on this task continued. Work in the Shaw Branch Creek Area also focused on rocking the drainage channels and slopes. As of the end of the period, work on this task continued.

2. Data and Results Received This Period:

- a. Attached are the lead monitoring results for the Missouri Department of Natural Resources – Department of State Parks (MDNR-DSP) air monitor located near the ORV Riding Area for December 2013. Neither The Doe Run Company nor Barr Engineering were involved with siting this monitor, collecting the samples, processing the samples, evaluating the data, or verifying the accuracy of the data.
- b. During this period, the Ambient Air Monitoring Reports for October 2013 and November 2013 were completed. Any issues identified in these reports are discussed below. A copy of these documents has been sent to your attention.

The October 2013 Ambient Air Monitoring Report noted the following:

- The action levels for lead and dust were not exceeded.
- No sample was taken on the Federal #2 (Big River) TSP monitor on 10/04/13 due to the run time of the monitor being outside of the acceptable limits. This issue has been addressed.
- There was a QA blank filter for the Federal #1 (Water Plant) TSP and PM₁₀ monitors on 10/11/13.
- No sample was taken on the Federal #2 (Big River) TSP monitor on 10/16/13 due to unknown reasons. Follow-up inspections of the monitor indicated that the monitor is working properly.
- No sample was taken on the Federal #2 (Big River) TSP monitor on 10/29/13 due to an electrical failure. Upon discovery, this issue was addressed.
- No sample was taken on the Federal #2 (Big River) TSP monitor on 10/30/13 due to a mechanical failure. Upon discovery, this issue was addressed.

- No sample was taken on the Federal #1 (Water Plant) PM₁₀ monitor on 10/31/13 due to a mechanical failure. Upon discovery, this issue was addressed.

The November 2013 Ambient Air Monitoring Report noted the following:

- The action levels for lead and dust were not exceeded.
- There was a QA blank filter for the Big River #4 QA TSP monitor on 11/19/13.
- No sample was taken on the Federal #1 (Water Plant) PM₁₀ monitor on 11/21/13 due to a mechanical failure. Upon discovery, this issue was addressed.
- No sample was taken on the Federal #4 (St. Joe Park)) PM₁₀ monitor on 11/27/13 due to a mechanical failure. Upon discovery, this issue was addressed.
- No samples were taken with the TSP monitors on 11/27/13, 11/28/13, or 11/29/13 due to the holiday.
- No samples were taken with the PM₁₀ monitors on 11/30/13 due to the holiday.

3. Planned Activities for Next Period:

- a. Work in the ORV Riding Area will continue on the task of covering the trails and grids that exceeded the 600 ppm action level in the portion of the area included in the Phase III fencing plan.
- b. Work in the Borrow Pit Area will continue on covering the open areas with rock or soil.
- c. Work in the Former Chat Pile Area will continue. Work in this area will focus on rocking the channels that have been constructed.
- d. Work will continue on the task of stockpiling trail rock, Type 1 riprap, Type 2 riprap, and Slope Protection Rock.
- e. Work in the Shaw Branch Creek Area will continue. Work in this area will focus on rocking slopes and grading the drainage channels.

4. Changes in Personnel:

- a. None.

5. Issues or Problems Encountered and the Resolution:

- a. None.

Air Quality Monitoring Pb results for December 2013

St. Joe State Park

Primary

AQM Pb results for October 2013					AQM Pb results for November 2013				
St. Joe State Park					St. Joe State Park				
Primary					Primary				
Sample Number	Date Collected	Sampler:	Result		Sample Number	Date Collected	Sampler:	Result	
AC12349	10/1/2013	#1 Primary	0.0069	µg/m³	AC15153	11/3/2013	#1 Primary	0.0047	µg/m³
AC12369	10/4/2013	#1 Primary	0.0050	µg/m³	AC15173	11/6/2013	#1 Primary	0.0035	µg/m³
AC12389	10/7/2013	#1 Primary	0.0206	µg/m³	AC15186	11/9/2013	#1 Primary	0.0284	µg/m³
AC12409	10/10/2013	#1 Primary	0.0052	µg/m³	AC15193	11/12/2013	#1 Primary	0.0216	µg/m³
AC12429	10/13/2013	#1 Primary	0.1813	µg/m³	AC15199	11/15/2013	#1 Primary	0.0024	µg/m³
AC12449	10/16/2013	#1 Primary	0.0047	µg/m³	AC15205	11/18/2013	#1 Primary	0.1026	µg/m³
AC12456	10/19/2013	#1 Primary	0.0054	µg/m³	AC15210	11/21/2013	#1 Primary	0.0031	µg/m³
AC12462	10/22/2013	#1 Primary	0.0821	µg/m³	AC15239	11/24/2013	#1 Primary	0.0085	µg/m³
AC12468	10/25/2013	#1 Primary	0.0191	µg/m³	AC15240	11/27/2013	#1 Primary	0.0604	µg/m³
AC15113	10/28/2013	#1 Primary	0.0094	µg/m³	AC15241	11/30/2013	#1 Primary	0.0050	µg/m³
AC15133	10/31/2013	#1 Primary	0.0023	µg/m³					
October Sum 0.342		October Average 0.03109090909091		µg/m³	November Sum 0.2402		November Average 0.02402		µg/m³
Run Days Scheduled: 11		Actual: 11		October Data Capture Rate 100.000%	Run Days Scheduled: 10		Actual: 10		November Data Capture Rate 100.000%

Sample Number	Date Collected	Site:	Result
AC15718	12/3/2013	St. Joe State Park - #1 Primary	0.0036 µg/m³
AC15738	12/6/2013	St. Joe State Park - #1 Primary	0.0061 µg/m³
AC15758	12/9/2013	St. Joe State Park - #1 Primary	0.0318 µg/m³
AC15778	12/12/2013	St. Joe State Park - #1 Primary	0.0043 µg/m³
AC15798	12/15/2013	St. Joe State Park - #1 Primary	0.0035 µg/m³
AC15805	12/18/2013	St. Joe State Park - #1 Primary	0.0047 µg/m³
AC15811	12/21/2013	St. Joe State Park - #1 Primary	0.0054 µg/m³
AC15817	12/24/2013	St. Joe State Park - #1 Primary	0.0049 µg/m³
AC15823	12/27/2013	St. Joe State Park - #1 Primary	0.0119 µg/m³
AC17732	12/30/2013	St. Joe State Park - #1 Primary	0.0272 µg/m³
December Sum 0.1034	December Average 0.01034	µg/m³	Run Days Scheduled: 10
		Actual: 10	December Data Capture Rate 100.000%

Three month rolling average: 0.02 µg/m³

Three Month Data Capture Rate: 100%

March 05, 2014

Ty Morris
Barr Engineering Company
1001 Diamond Ridge
Suite 1100
Jefferson City, MO 65109
TEL: (573) 638-5020
FAX: (573) 638-5001



RE: Federal MTS 25186-0006

WorkOrder: 14021336

Dear Ty Morris:

TEKLAB, INC received 5 samples on 2/28/2014 10:22:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Michael L. Austin
Project Manager
(618)344-1004 ex 16
MAustin@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

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Definitions

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected, at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|---|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| M - Manual Integration used to determine area response | ND - Not Detected at the Reporting Limit |
| R - RPD outside accepted recovery limits | S - Spike Recovery outside recovery limits |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Cooler Receipt Temp: 2.8 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nicman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
Fax	(618) 344-1005	(217) 698-1005	(913) 541-1998	(618) 344-1005
Email	jhriley@teklabinc.com	KKlostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2015	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2014	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		5/31/2015	Collinsville
Kentucky	UST	0073		1/31/2015	Collinsville
Missouri	MDNR	00930		5/31/2015	Collinsville
Oklahoma	ODEQ	9978		8/31/2014	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab ID: 14021336-001

Client Sample ID: G20LT-1

Matrix: SOLID

Collection Date: 02/27/2014 9:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP								
Lead	NELAP	3.85		1050	mg/Kg-dry	1	03/03/2014 22:22	96484



Laboratory Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab ID: 14021336-002

Client Sample ID: G20LT-2

Matrix: SOLID

Collection Date: 02/27/2014 9:02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP								
Lead	NELAP	3.7		645	mg/Kg-dry	1	03/03/2014 22:33	96484



Laboratory Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab ID: 14021336-003

Client Sample ID: G20LT-3

Matrix: SOLID

Collection Date: 02/27/2014 9:05

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP								
Lead	NELAP	3.77		1180	mg/Kg-dry	1	03/03/2014 22:37	96484



Laboratory Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab ID: 14021336-004

Client Sample ID: G20LT-4

Matrix: SOLID

Collection Date: 02/27/2014 9:07

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP								
Lead	NELAP	3.77	S	797	mg/Kg-dry	1	03/03/2014 22:40	96484
<i>MS QC limits for Pb are not applicable due to high sample/spike ratio.</i>								



Laboratory Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab ID: 14021336-005

Client Sample ID: G20LT-5

Matrix: SOLID

Collection Date: 02/27/2014 9:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP								
Lead	NELAP	3.64		983	mg/Kg-dry	1	03/03/2014 22:51	96484



Sample Summary

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
14021336-001	G20LT-1	Solid	1	02/27/2014 9:00
14021336-002	G20LT-2	Solid	1	02/27/2014 9:02
14021336-003	G20LT-3	Solid	1	02/27/2014 9:05
14021336-004	G20LT-4	Solid	1	02/27/2014 9:07
14021336-005	G20LT-5	Solid	1	02/27/2014 9:10



Dates Report

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
14021336-001A	G20LT-1	02/27/2014 9:00	02/28/2014 10:22		
	SW-846 3050B, 6010B, Metals by ICP			02/28/2014 16:51	03/03/2014 22:22
14021336-002A	G20LT-2	02/27/2014 9:02	02/28/2014 10:22		
	SW-846 3050B, 6010B, Metals by ICP			02/28/2014 16:51	03/03/2014 22:33
14021336-003A	G20LT-3	02/27/2014 9:05	02/28/2014 10:22		
	SW-846 3050B, 6010B, Metals by ICP			02/28/2014 16:51	03/03/2014 22:37
14021336-004A	G20LT-4	02/27/2014 9:07	02/28/2014 10:22		
	SW-846 3050B, 6010B, Metals by ICP			02/28/2014 16:51	03/03/2014 22:40
14021336-005A	G20LT-5	02/27/2014 9:10	02/28/2014 10:22		
	SW-846 3050B, 6010B, Metals by ICP			02/28/2014 16:51	03/03/2014 22:51



Quality Control Results

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

SW-846 3050B, 6010B, METALS BY ICP

Batch 96484		SampType: MBLK		Units mg/Kg-dry							Date Analyzed
SampID: MBLK-96484											
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit			
Lead	4		< 4	4	0	0	-100	100			03/03/2014

Batch 96484		SampType: LCS		Units mg/Kg-dry							Date Analyzed
SampID: LCS-96484											
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit			
Lead	4		44.8	50	0	89.6	85	115			03/03/2014

Batch 96484		SampType: MS		Units mg/Kg-dry							Date Analyzed
SampID: 14021336-004AMS											
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit			
Lead	3.77	S	795	47.17	797.2	-4.2	75	125			03/03/2014

Batch 96484		SampType: MSD		Units mg/Kg-dry							RPD Limit 20	Date Analyzed
SampID: 14021336-004AMSD												
Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD				
Lead	3.77	S	828	47.17	797.2	64.4	795.2	3.99				03/03/2014



Receiving Check List

<http://www.teklabinc.com/>

Client: Barr Engineering Company

Work Order: 14021336

Client Project: Federal MTS 25186-0006

Report Date: 05-Mar-14

Carrier: FedEx

Received By: EEP

Completed by:

On:

28-Feb-14

Emily E. Pohlman

Reviewed by:

On:

28-Feb-14

Michael L. Austin

Pages to follow: Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Temp °C 2.8

Type of thermal preservation?

None ☐

Ice ☒

Blue Ice ☐

Dry Ice ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Reported field parameters measured:

Field ☐

Lab ☐

NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?

Yes ☐

No ☐

No VOA vials ☒

Water - TOX containers have zero headspace?

Yes ☐

No ☐

No TOX containers ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

NA ☒

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐

No ☐

NA ☒

Any No responses must be detailed below or on the COC.

